

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A biocompatible hydrogel-forming tissue-bonding adhesive composition, the composition comprising:

at least one block copolymer polyol[[.]], wherein each hydroxyl of said block copolymer polyol is terminated with a low molecular weight polyisocyanate **selected from toluene diisocyanate and isophorone diisocyanate**, said terminated block copolymer polyol being liquid and water-soluble;

and wherein said block copolymer polyol ~~has functionality in the range of 1.5-8~~ **is trifunctional and is formed from a reaction between a polyethylene/polypropylene oxide diol of between 800 and 5,000 MW, trimethylolpropane, and the low molecular weight polyisocyanate**, and wherein at least 1% of said composition by weight, but not more than 5% of said composition by weight, comprises ~~[[a]] the~~ low molecular weight ~~[[free]] polyisocyanate~~ **as a free polyisocyanate**, ~~which may be the same as the polyisocyanate terminating the block copolymer polyols;~~

and wherein on average in the composition, 10% to 30% of the monomers of said block copolymer polyol are derived from propylene oxide monomers, and the rest of the monomers are ethylene oxide derived monomers;

characterized in that after polymerization, upon exposure to tissue or water, the adhesive composition forms a hydrogel comprising, after equilibration with water or aqueous fluids, greater than 50% water by volume; and

wherein the composition polymerizes in situ upon exposure to water and application to tissue, without requiring the addition of a catalyst.

2-6. (Cancelled).

7. (Previously Presented) The biocompatible composition as recited in claim 1 wherein said polyisocyanate comprises 2,6-toluene diisocyanate.

8. (Previously Presented) The biocompatible composition as recited in claim 1

wherein said polyisocyanate comprises isophorone diisocyanate.

9. (Currently Amended) The biocompatible composition as recited in claim 1 wherein said polyisocyanate comprises an 80:20 mixture of 2,4- toluene diisocyanate and 2,6-toluene diisocyanate ~~and about 3% of the composition is free polyisocyanate.~~

10. (Currently Amended) The biocompatible composition as recited in claim 1 wherein said polyisocyanate comprises isophorone diisocyanate and about 1.5% of said composition is **the** free polyisocyanate.

11. (Currently Amended) The biocompatible composition as recited in claim 1, wherein said composition is comprised of ~~two polyisocyanates~~ **toluene diisocyanate and isophorone diisocyanate** and wherein ~~one of said polyisocyanates~~ **toluene diisocyanate** comprises a free isocyanate ~~B as an aromatic polyisocyanate and the other of said polyisocyanates comprises an aliphatic isocyanate A which~~ **isophorone diisocyanate** is used to endcap said copolymer.

12-48. (Cancelled).

49. (Previously Presented) The composition of claim 40 wherein the polyols are capped by the isocyanates without the use of a catalyst.

50. (Previously Presented) The composition of claim 17 wherein the polyols are capped by the isocyanates without the use of a catalyst.

51. (Currently Amended) **[[A]] The biocompatible composition as recited in claim 1** bonding to tissue, **further** comprising:

~~a liquid reactive component, comprising one or more polyol-terminated block polymers, each such polymer being entirely reacted with a low molecular weight organic polyisocyanate, said polymers having an average functionality of 3, each said reacted polymer being a solvent for at least 1% but less than 5% by weight of a free low molecular weight polyisocyanate, which may be the same as the low molecular weight organic isocyanate reacted with said polymer;~~

~~wherein said liquid reactive component consists essentially of ethylene oxide and propylene oxide subunits and contains on average 10% to 30% propylene oxide; and~~

an activating component, consisting essentially of water, optionally containing medically compatible water soluble or miscible materials, which is mixed with the liquid reactive component at the time of application to tissue;

~~further characterized in that the mixture of reactive component and activating component creates a polymerizing mixture which adheres to any tissue it contacts during the polymerization.~~

52. (Currently Amended) ~~A one-part biocompatible hydrogel-forming tissue adhesive prepolymer~~ **The biocompatible** composition **as recited in claim 1**, comprising:

~~a block polyol having a tri-functional structure containing ethylene oxide and 10% to 30% propylene oxide wherein each hydroxyl group of said polyol is terminated with~~ **[[a]] the** low molecular weight polyisocyanate without the use of a catalyst, the isocyanate group to hydroxyl group ratio being in the range of 1.5 to 3.0, ~~the terminated polyol being liquid and water soluble;~~

~~wherein the prepolymer composition contains at least 1% and less than 5% free polyisocyanate and polymerizes to form a hydrogel upon application of the prepolymer to tissue resulting in exposure to water.~~

53. (New) The biocompatible composition as recited in claim 9, wherein about 3% of the composition is free polyisocyanate.